

Stoneage Innovations and Inventions

By Barbara M. Soper

Let's be more appreciative of our Stone Age ancestors. They were some of the most industrious and innovative people ever to walk the planet. They learned to survive in an Ice Age, to fashion tools, to hunt and share food, to build the first dwellings, and to develop the first cultures. They were the original pioneers, populating whole continents and spreading the human species worldwide while still hunters and food-gatherers.

The Stone Age is divided into three periods—the Paleolithic (Old Stone Age,) Mesolithic (Middle Stone Age,) and Neolithic (New Stone Age.) During these periods, human beings emerged and began the process of civilization. *Homo Erectus*, shown on a stamp from Palau, Scott 546i, was the first hominid to leave the African homeland. Around a million years ago, he ventured into Europe and Asia. This early hominid is believed to be the ancestor of Neanderthal man and his Cro-Magnon successors. Remains of *Homo erectus* dating from 200,000 to 120,000 years ago have been unearthed at Sima de los Huesos or “Pit of Bones” in northern Spain.

Neanderthal Man, shown on three stamps from Gibraltar, Scott 296-298, lived in Europe at the time of the last Ice Age between 230,000 to 30,000 years ago. The stamps show a Neanderthal skull, a Neanderthal profile, and a Neanderthal family. Low foreheads, heavy brow ridges, broad noses, and protruding jaws characterized Neanderthal faces. These Stone Age people evolved in Europe, in geographic and genetic isolation, over hundreds of thousands of years. From Europe they ventured east into central Asia and the Middle East. They lived in arctic cold on the fringes of European ice sheets, and had to dress for the climate. A stamp from Palau, Scott 546r, shows a

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Neanderthal hunter dressed in fur clothing such as might be worn by a modern Eskimo.

Neanderthals were short, muscular, and barrel chested.

Their physique was an adaptation to their cold environment. Barrel chests in today's Inuit help them preserve body heat and withstand freezing temperatures.

The name Neanderthal comes from the Neander Valley near Dusseldorf, Germany, where the first fossils of this early human were discovered in 1856. "Thal" (recently changed to "tal") is the German word for valley. Ever since the first discovery of his remains, Neanderthal man has been shrouded in mystery. No one is certain when or how he arrived in Europe but, once there, he ranged from Spain in the south to Britain in the north. He must have found Europe a harsh, inhospitable place, but he relied on his strength and ingenuity to survive.

In his fight for survival, Neanderthal man had fire, which he used for light, heat, and to harden the tips of his spears. A souvenir sheet from Gabon, Scott 685, shows some of the standard tools, made from stone and flint, which would have been used by Neanderthal man and his Upper Paleolithic successors. A variety of hand axes, scrapers, knives, awls and spear points were in use. The hand axe, which could be held in the palm of the hand, was Neanderthal man's Swiss army knife. He used it for cutting, scraping, butchering, prying up roots, and cleaning animal skins. Excavations at Neanderthal sites like Le Moustier in France have shown that tools were produced in specific areas, which may have been Stone Age manufacturing complexes.

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Once thought to be a scavenger incapable of hunting, Neanderthal man was, in fact, a superb hunter. Some of the animals he hunted—urochs, cave bears, wild boars, and mammoths—were ferocious, dangerous and unpredictable. The hunter subjected himself to the possibility of being mauled, mangled or killed each time he confronted his quarry. For that reason, Neanderthals hunted in groups, which afforded them greater protection. Hunters had to agree upon a plan of attack, cooperate in killing the trapped animal and, afterward, devise a means to get the carcass home. That presupposed a rudimentary language.

Neanderthals brought down enormous game like the wooly mammoth shown on a first day cover. This was a huge, lumbering Ice Age beast that stood 14 feet high at the shoulder. The United States stamp, Scott 3078, on the cover shows the huge, curved tusks that could gore hunters to death. Nevertheless, mammoths were principal food animals of Neanderthal people. The prehistoric hunters tried to corner such beasts in bogs, ravines or closed-in places to give themselves a better chance to make the kill. Apparently, Neanderthals never conceived of projectiles. They had to hunt at close range with only their spears, which was a high-risk operation. All the more reason to rely on help from other members of their clan.

After killing their quarry, the Neanderthal hunters had to tug and pull the carcass back to their cave. Stamps from Jersey, Scott 666 and 667, show a hunting party hoisting a gigantic mammoth up the sheer face of a cliff. Bonfires usually burned at the entrance to the cave and it was there that, after butchering, the meat was roasted and eaten. The skins, pelts, tusks, and antlers of dead animals were used for other needs of the clan. Chief among them was clothing.

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A North Korean first day cover shows a prehistoric woman making an item of fur clothing from an animal pelt. It took great skill to render skins supple enough to be worn as clothing. They had to be scraped with a sharp edged tool of stone or bone. They had to be de-haired using a scraper. Then they had to be washed, dried, and stretched before they were suitable for use. Some means also had to be devised to hold them on the body. What the Neanderthals used in place of fasteners or buttons is unknown. But they certainly had something to hold clothing on the body. Hunters racing across plains in pursuit of game could not afford to have their clothing come loose or fall off.

Neanderthals were the first to bury their dead. The use of red ochre played a prominent role in their burials. Bones found at many Neanderthal burial sites were stained with the red pigment. It is unknown whether the ochre furnished evidence of some sort of body painting or whether a red wrap originally covered the body but disintegrated with time, leaving its color on the bones. Prehistoric pollen was also found at a Neanderthal burial site in northern Iraq, suggesting that flowers were buried with the dead. In recent years, evidence for primitive artifacts like the pierced teeth of red deer and seashells bored through with a hole have been found with Neanderthal burials. Burial of the dead and offerings of grave goods are human activities. Animals neither bury nor care for their dead.

Around the end of the last Ice Age, another group of humans—the tall, slim breed known as Cro-Magnon Man—arrived in Europe and Asia. The newcomers came from Africa in a great migration, perhaps in response to climactic change. For a period of about 10,000 years, they coexisted with Neanderthals before the Neanderthals became extinct around 30,000 years ago.

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Two Cuban stamps, Scott 3880 and 3881 show artist's drawings of the two types of humans and their representative skull shapes. It is unknown what happened when the two groups encountered each other. Several theories have been proposed.

The first is that Cro-Magnon man, being superior intellectually and technologically to his predecessor, wiped out the remaining Neanderthals. So far, no mass graves of Neanderthals, indicative of genocide, have been found to substantiate this.

Secondly, there is the possibility that Cro-Magnon man have brought with him diseases from tropical Africa, which caused Neanderthals to die in record numbers. That is a distinct possibility.

Thirdly, many prehistorians believe that Neanderthals and Cro-Magnon interbred and the Neanderthals were gradually absorbed into the Cro-Magnon population. The recent discovery of a child's skeleton in a rock-shelter north of Lisbon, Portugal, in which the child showed both Neanderthal and Cro-Magnon features, was a feature article in the July/August 2000 issue of *Archaeology Magazine*. It proved that, at least in some instances, interbreeding of populations did take place.

Whatever the fate of the Neanderthals, the introduction of a new, technologically advanced race of humans in Europe brought revolutionary change. Modern humans introduced new and better tools. In hunting, the Cro-Magnon knew how to use projectiles. The newcomers could hurl javelins and use bows and arrows, which made hunting a lot easier and safer. A stamp from

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Lesotho, Scott 62, shows a cave painting of a man about to hurl a javelin. A stamp from the Central African Republic, Scott 109, shows the bow and arrow, which came into widespread use near the end of the Stone Age.

Stone Age man did not live in caves and rock shelters alone. A growing body of evidence shows that he had other dwellings made of wood, mammoth bones, grasses, and hides. Stone survives the ravages of time better than the other materials but it does not mean that prehistoric man was limited to stone shelters. Three stamps show prehistoric dwellings built of materials other than stone. Palau, Scott 546j, depicts a hut fashioned from sticks, its sides held in place by huge boulders. A recent issue from Mongolia illustrates a prehistoric woman cooking before a teepee, reminiscent of American Indian shelters. Aland Islands, Scott 106, shows a Stone Age house at the edge of a forest and near a stream. The people who used it would have been ideally situated to catch both food animals and fish. Prehistoric man probably invented these “mobile homes” so that he could venture further away from his home cave in search of the animals he depended upon for food.

Stone Age people also made inroads on developing methods of transportation. Rock carvings have been found in Norway, which show men in skin boats hunting seal and porpoise. Such boats were well adapted to cold climates where waters were filled with floating ice. The modern Eskimo *umiak* is very similar to these prehistoric boats.

Prehistoric people also invented the sledge, used from Scandinavia to the Urals. This facilitated movement of heavy loads over both snow and dry land. The great trilithons at Stonehenge were

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brought on sledges to their erection site on Salisbury plain in Wiltshire, England. A stamp, Jersey, Scott 669, shows prehistoric people carting construction materials by sledge and rollers to a Neolithic building site.

Stone Age people were also the first skiers. As a means of getting around, skis have been with us for a long, long time. A stamp from Norway, Scott 486, shows a prehistoric rock carving of a figure on skis holding a pole.

Neanderthal man was the first to use ochre as a crayon for marking on rock but Cro-Magnon man carried painting to sublime heights. The breathtaking animal murals painted on cave walls and vaults in France and Spain are testimony to his well-developed aesthetic sense. Upon emerging from Lascaux Cave in France, shown on Mali, Scott 268 and Cuba, Scott 1216, artist Pablo Picasso is supposed to have remarked, “We have invented nothing!”

Prehistoric art was not restricted to cave painting. Many decorative objects were fashioned from stone, bone, wood, antler, and ivory. A carved elk’s head staff is shown on a Lithuanian stamp, Scott 579. A sculpture from the Lepenski Vir archaeological site in Serbia is depicted on Yugoslavia, Scott 1205. The sculpture blends human and fish characteristics. The stamp, Aland Islands Scott 95, gives an example of Neolithic pottery.

Stone Age people demonstrated the first glimmerings of a religious sense with their production of Venus figurines. Such female figurines have been found in many parts of the world dating to the same era. A stamp from Ethiopia, Scott 548, shows an assortment of these carved female

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figurines. There are two views of the famous Venus of Brassempouy Paleolithic ivory carving. A frontal view is provided on Mali, Scott 268, while France, Scott 1465, offers a side view. The carved head is believed to have been part of a larger statue. Venus figures were thought to represent the earth mother, source of life and fecundity, who was worshipped by prehistoric people.

Other ages may have their great inventors and innovators but none can surpass the Stone Age people who laid the foundation for civilization itself. They populated the entire earth before they had science, technology, or even modes of transportation. They banded together against the savagery of nature and fearsome predators, and learned to cooperate with their fellow humans. They invented the means to feed, clothe, and shelter themselves. They invented culture, art and religion. Instead of thinking of the Stone Age as a prelude to history, think of history as a continuation and elaboration of all the exciting things discovered in the Stone Age.